

Claim Listing

1. (Currently Amended) A controlled suspension system for use between a truck cab and an associated truck frame comprising:

(a) a strut adapted to be attached at one end to ~~a truck~~ said cab and at an opposite end to ~~an associated truck~~ said frame, said strut including an air sleeve capable of being selectively pressurized, an inner tube, an outer tube concentric with said inner tube, and a bearing sleeve positioned between said inner tube and said outer tube, whereby said bearing sleeve distributes a bending moment applied to the ends of said strut;

(b) a height sensor adapted to be attached to said ~~truck~~ cab and said ~~associated truck~~ frame for measuring a distance therebetween and generating a signal indicative thereof; and

(c) a controller for receiving said signal from said height sensor and selectively pressurizing said strut;

(d) whereby said distance between said cab and said ~~associated truck~~ frame is maintained within desired limits by selective pressurization of said strut.

2. (Canceled)

3. (Currently Amended) The suspension system of ~~claim 2~~ claim 1 wherein said air sleeve is connected to said inner tube and said outer tube.

4. (Original) The suspension system of claim 3 wherein said air sleeve is concentric with said inner tube.

5. (Original) The suspension system of claim 4 wherein said air sleeve includes a flexible portion connected to said outer tube.

6. (Original) The suspension system of claim 5 wherein said air sleeve includes a relatively rigid portion connected to said inner tube.
7. (Original) The suspension system of claim 6 wherein said relatively rigid portion is concentric with said inner tube.
8. (Canceled)
9. (Original) The suspension system of claim 1 wherein said strut includes a three-point connection adapted to interconnect said cab and said frame, whereby said three-point connection resists relative lateral movement between said cab and said frame.
10. (Original) The suspension system of claim 1 wherein said frame includes a pair of longitudinal frame elements and said strut is adapted to be positioned adjacent to one of said frame elements, thereby providing clearance beneath said cab and between said frame elements.
11. (Original) The suspension system of claim 10 wherein said strut is adapted to be positioned adjacent an inboard side of one of said frame elements.
12. (Original) The suspension system of claim 11 wherein said strut is adapted to be mounted on said one of said frame elements.
13. (Original) The suspension system of claim 10 wherein said strut is adapted to be positioned adjacent an outboard side of said one of said frame elements.
14. (Original) The suspension system of claim 1 wherein said frame includes a pair of longitudinal frame elements; said strut is adapted to be positioned adjacent one of said frame elements, and further comprising a second strut, said second strut being adapted to be positioned adjacent the other one of said frame elements; thereby providing clearance beneath said cab and between said frame elements.

15. (Original) The suspension system of claim 14 wherein said strut and said second strut are adapted to be positioned adjacent inboard sides of said frame elements.

16. (Original) The suspension system of claim 14 wherein said strut and said second strut are adapted to be positioned adjacent outboard sides of said frame elements.

17. (Original) The suspension system of claim 14 wherein said second strut includes an air sleeve capable of being selectively pressurized; said controller being connected to selectively pressurize said second strut.

18. (Currently Amended) A controlled suspension system for use between a truck cab and an associated truck frame comprising:

(a) a strut adapted to be attached at one end to ~~a truck~~ said cab and at an opposite end to ~~an associated truck~~ said frame, said strut including a bearing sleeve and a three-point connection adapted to interconnect said cab and said frame, ~~whereby said three-point connection~~ such that said strut resists relative lateral movement between said cab and said frame;

(b) a height sensor adapted to be attached to said ~~truck cab~~ and said ~~associated truck~~ frame for measuring a distance therebetween and generating a signal indicative thereof; and

(c) a controller for receiving said signal from said height sensor and selectively pressurizing said strut;

(d) whereby said distance between said cab and said ~~associated truck~~ frame is maintained within desired limits by selective pressurization of said strut.

19. (Original) The suspension system of claim 18 wherein said frame includes a pair of longitudinal frame elements and said strut is adapted to be positioned adjacent to one of said frame elements, thereby providing clearance beneath said cab and between said frame elements.

20. (Original) The suspension system of claim 19 wherein said strut is adapted to be positioned adjacent an inboard side of one of said frame elements.
21. (Original) The suspension system of claim 19 wherein said strut is adapted to be mounted on said one of said frame elements.
22. (Original) The suspension system of claim 19 wherein said strut is adapted to be positioned adjacent an outboard side of said one of said frame elements.
23. (Original) The suspension system of claim 18 wherein said frame includes a pair of longitudinal frame elements; said strut is adapted to be positioned adjacent one of said frame elements, and further comprising a second strut, said second strut being adapted to be positioned adjacent the other one of said frame elements; thereby providing clearance beneath said cab and between said frame elements.
24. (Original) The suspension system of claim 23 wherein said strut and said second strut are adapted to be positioned adjacent inboard sides of said frame elements.
25. (Original) The suspension system of claim 23 wherein said strut and said second strut are adapted to be positioned adjacent outboard sides of said frame elements.
26. (New) A controlled suspension system for use between a truck cab and an associated truck frame comprising:
- (a) a strut adapted to be attached at one end to said cab and at an opposite end to said frame, said strut including an air sleeve capable of being selectively pressurized, an inner tube, an outer tube concentric with said inner tube, wherein said air sleeve is concentric with said inner tube and includes a relatively rigid portion connected to said inner tube and a flexible portion connected to said outer tube, and said air sleeve, said inner tube and said outer tube define a primary air chamber, and said strut includes a seal adapter that, together with said inner tube and said outer tube, defines a secondary air chamber, and a bearing sleeve positioned between said inner tube and said outer tube,

whereby said bearing sleeve distributes a bending moment applied to the ends of said strut;

(b) a height sensor adapted to be attached to said cab and said frame for measuring a distance therebetween and generating a signal indicative thereof; and

(c) a controller for receiving said signal from said height sensor and selectively pressurizing said strut;

(d) whereby said distance between said cab and said frame is maintained within desired limits by selective pressurization of said strut.